

## LAND PRODUCTIVITY VALUATION

**COPY**

Two amendments to the Texas Constitution permit agricultural and open-space land to be taxed generally on its agricultural use, or productive value. This means that taxes would be assessed against the productive value of the land instead of the selling price of the land in the open market. This permits the land to be taxed in proportion to its ability to produce agricultural products and not based on the land's value to society in general.

The legal basis for special land appraisal is found in the Texas Constitution in Article VIII, Sections 1-d and 1-d-1. The two types of land and valuation are commonly called "ag-use" or "1-d" and "open space" or "1-d-1". The corresponding provisions of the Texas Property Tax Code are Sections 23.41 through 23.46, Agriculture Land, and Sections 23.51 through 23.57, Open-space Land.

The purpose of the provisions are similar. Under both provisions, the land must be in agricultural use and is valued in the same manner. However, there are differences in the qualifications that must be met in order to receive the productivity valuation.

1. Ag-use, 1-d, qualifications include:
  - ° The land must be owned by a natural person. Partnerships, corporations or organizations may not qualify.
  - ° The land must have been in agricultural use for three (3) years prior to claiming this valuation.  
The owner must apply for the designation each year and file a sworn statement about use of the land.
  - ° The agricultural business must be the land owner's primary occupation and source of income.
2. Open-space, 1-d-1, qualifications include:
  - ° The land may be owned by an individual, corporation or partnership.
  - ° The land must be currently devoted principally to agricultural use to the degree of intensity generally accepted in the area.
  - ° The land must have been devoted to a qualifying agricultural use for at least five (5) of the past seven (7) years.
  - ° Agricultural business need not be the principle business of the owner.

° Once an application for 1-d-1 is filed and approved, a landowner is not required to file again as long as the land qualifies unless the chief appraiser requests another application to confirm current qualification.

The possibility for a "rollback tax" exists under either form of special land valuation. This liability for additional tax is created under 1-d valuation by either sale of the land or a change in use of the land. It extends back to the three years prior to the year in which the sale or change occurs.

Under 1-d-1, a rollback is triggered by a change in use to a non-agricultural purpose that would not qualify for productivity valuation. Taxes are rolled back or recaptured for the five years preceding the year of the change.

The additional tax is measured by the difference between taxes paid under productivity valuation provisions and the taxes which would have been paid if the land had been put on the tax roll at market value.

These provisions are effective only if applications are filed with the appraisal district office in a timely manner. Applications should be filed between January 1 and before May 1. Applications received after May 1 and until the appraisal records are approved are subject to a penalty for late filing.

TITUS COUNTY APPRAISAL DISTRICT

AGRICULTURAL LAND

It is the opinion of the Titus County Appraisal District that the attached Agricultural Land Qualification Guidelines are valid for mass appraisal purposes and can be applied uniformly throughout Titus County.

It should be noted that these guidelines are to be used as a general guide for qualifying agricultural land. Exceptions to the general rule will be handled on a case by case basis.

## Definitions of Key Words/Phrases

- A. "Prudent" capable of making important management decisions; shrewd in the management of practical affairs. Specifically the law states that the land must be utilized as would an ordinary and prudent manager in the area of the taxing unit.
- B. "Substantial" ample to satisfy; considerable in quantity. Specifically, the law states that the agricultural land must be an identifiable and substantial tract of land. This means that the tract must be of adequate size to be economically feasible to farm or ranch.
- C. "Typically" exhibiting the essential characteristics of a group. Specifically, the law states that ag land will be utilized as would a typically (ordinary) prudent manager. Statistically, a typically prudent manager is the median farmer or rancher.
- D. "Agricultural use to the degree of intensity generally accepted in the area" farming or ranching to the extent that the typically prudent manager in the area of the taxing unit would farm or ranch on an identifiable and substantial tract of land when the tract is devoted principally to agricultural use. A better understanding of this definition can be gained by identifying the key elements of the definition and explaining each as follows:
  - 1. Degree of intensity generally accepted in the area shall mean that the farming and ranching practices (cropping patterns, planting rates, fertilization methods, harvesting and marketing techniques, etc.) are those of a typically prudent farm or ranch manager.
  - 2. Typically prudent farm or ranch managers are ordinary farmers in terms of acres farmed as well as management ability. Given that all other factors remain constant, the number of acres farmed determines the farmer's capital structure. Typically prudent farm or ranch managers located in Titus County are assumed to have similar equipment of similar value and utility.
  - 3. Simply stated a substantial tract is a tract of land large enough to be farmed by itself in a typically prudent manner.
  - 4. Area is interpreted to be that land inside the jurisdictional boundaries of the Titus County Appraisal District.
  - 5. Principally means the more important use in comparison with other uses to which the land is put.

TITUS COUNTY APPRAISAL DISTRICT

AGRICULTURAL LAND

QUALIFICATION GUIDELINES

The general policy of the Titus County Appraisal District is in accordance with the State Property Tax Board's qualification guidelines for agricultural use. The District's policy is that in order for ag-use valuation the land must:

1. Be utilized to the "degree of intensity" generally accepted in Titus County. Degree of intensity is measured by local farming and ranching practices of a typically prudent manager.
2. Be managed in a "typically prudent manner". Typically prudent may be measured by comparing the actual production of the subject property to the average yields of Titus County.
3. "Be a substantial tract of land". Substantial means an identifiable tract of land of adequate size to support a typically prudent operation.

IN ACCORDANCE TO THE STATE PROPERTY TAX BOARD GUIDELINES, THE NET-TO-LAND IS BASED ON A FIVE YEAR AVERAGE OF THE YEARS PRECEDING THE YEAR OF THIS APPRAISAL. THIS FIVE YEAR AVERAGE TENDS TO REMOVE FLUCTUATIONS IN VALUE BECAUSE OF VARYING PRICES, YIELDS, WEATHER CONDITIONS, AND COSTS. ONLY THE FACTORS ASSOCIATED WITH THE LAND'S CAPACITY TO PRODUCE MARKETABLE AGRICULTURAL PRODUCTS ARE CONSIDERED IN ESTIMATING PRODUCTIVITY VALUES.

ONLY TYPICAL CASH LEASES ARE USED FOR THIS ESTIMATION OF PRODUCTION VALUES.

# SCHEDULE 1990

## SMALL TRACT CITY OF MOUNT PLEASANT

ST-1	0.00 to 0.99	\$ 4,500
ST-2	1.00 to 1.99	4,000
ST-3	2.00 to 2.99	3,500
ST-4	3.00 to 4.99	2,850
ST-5	5.00 to 6.99	2,350
ST-6	7.00 to 9.99	2,000
ST-7	10.00 to 13.99	1,800
ST-8	14.00 to 17.99	1,500
ST-9	18.00 to 20.00	1,200

## SMALL TRACT CITY OF TALCO AND CITY OF WINFIELD

ST-10	0.00 to 0.99	2,600
ST-11	1.00 to 1.99	2,500
ST-12	2.00 to 2.99	2,300
ST-13	3.00 to 4.99	2,100
ST-14	5.00 to 6.99	1,900
ST-15	7.00 to 9.99	1,700
ST-16	10.00 to 13.99	1,500
ST-17	14.00 to 17.99	1,300
ST-18	18.00 to 20.00	1,100

## SMALL TRACT OUTSIDE CITIES RURAL AREA

ST-50	0.00 to 1.99	2,500
ST-51	2.00 to 4.99	2,250
ST-52	5.00 to 9.99	2,000
ST-53	10.00 to 14.99	1,800
ST-54	15.00 to 20.00	1,700

1994

TITUS COUNTY AGRICULTURAL LAND SCHEDULE

RF1: Rural Farm Land, Property used in the production of crops for human consumption. Examples, watermelons, potatoes, corn, peas, beans, tomatoes, etc., etc..

RP1: Rural Pasture Land, Property used in the production of livestock, most of this class of land is set aside for hay production, common trends are, cleaned, highly fertilized, smoothed fields of high quality grasses such as costal bermuda.

RP2: Rural Native Pasture Land, Property used in the production of livestock, most of this class is used for grazing land, but can also be used for hay production, lands seem to be somewhat cared for and may be fertilized at times, will have some obstacles such as trees, rocks, low wet areas. Mixed common native grasses most often found within this class.

RP4: Rural Low Grade Native Pasture Land, Property used in the production of livestock, grazing land or natural shelter, land may consist of poor quality grasses with tall weeds and timber areas. Timber can be used as shade and shelter, Property is commonly uncared for and allowed to grow naturally, fence repair can become a common problem within this class of land, much of the time this class is troubled by floods and wet areas.

M: Barren, This property has hardly any useful effect within our county, it can be considered lands that have been flooded with salt water by oil production, ravines, rocky areas, desert areas, and un-productive soil types.



TITUS COUNTY APPRAISAL DISTRICT  
2005  
SMALL TRACT LAND SCHEDULE

Small Tract

City of Mt Pleasant

<u>Land Code</u>	<u>Acres</u>	<u>Value Per Acre</u>
RST1	0.00 TO 0.99	4500
RST2	1.00 TO 1.99	4000
RST3	2.00 TO 2.99	3500
RST4	3.00 TO 4.99	2850
RST5	5.00 TO 6.99	2350
RST6	7.00 TO 9.99	2000
RST7	10.00 TO 13.99	1800
RST8	14.00 TO 17.99	1500
RST9	18.00 TO 20.00	1200

Small Tract

City of Talco & City of Winfield

RST10	0.00 TO 0.99	2600
RST11	1.00 TO 1.99	2500
RST12	2.00 TO 2.99	2300
RST13	3.00 TO 4.99	2100
RST14	5.00 TO 6.99	1900
RST15	7.00 TO 9.99	1700
RST16	10.00 TO 13.99	1500
RST17	14.00 TO 17.99	1300
RST18	18.00 TO 20.00	1100

Small Tract

Outside Cities

Rural Area

RST50	0.00 TO 1.99	5000
RST51	2.00 TO 4.99	3750
RST52	5.00 TO 9.99	3500
RST53	10.00 TO 14.99	2200
RST54	15.00 TO 20.00	1700

TITUS COUNTY APPRAISAL DISTRICT  
2004  
SMALL TRACT LAND SCHEDULE

**COPY**

Small Tract

City of Mt Pleasant

<u>Land Code</u>	<u>Acres</u>	<u>Value Per Acre</u>
RST1	0.00 TO 0.99	4500
RST2	1.00 TO 1.99	4000
RST3	2.00 TO 2.99	3500
RST4	3.00 TO 4.99	2850
RST5	5.00 TO 6.99	2350
RST6	7.00 TO 9.99	2000
RST7	10.00 TO 13.99	1800
RST8	14.00 TO 17.99	1500
RST9	18.00 TO 20.00	1200

Small Tract

City of Talco & City of Winfield

RST10	0.00 TO 0.99	2600
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RST13	3.00 TO 4.99	2100
RST14	5.00 TO 6.99	1900
RST15	7.00 TO 9.99	1700
RST16	10.00 TO 13.99	1500
RST17	14.00 TO 17.99	1300
RST18	18.00 TO 20.00	1100

Small Tract

Outside Cities

Rural Area

RST50	0.00 TO 1.99	4000
RST51	2.00 TO 4.99	2750
RST52	5.00 TO 9.99	2500
RST53	10.00 TO 14.99	2000
RST54	15.00 TO 20.00	1700

**CO COPY**

EVERGREEN FOREST LANDS

Evergreen forest land includes all forested areas in which the trees are predominantly (more than 2/3) those which remain green throughout the year.

PINE

RTP1: Rural Timber Pine Land, ready for final harvest of productive pine timber, can be used for pole timber, sawlogs & veneer sold by (\$/MBF-Doyle), age is generally 35-50 plus years old.

RTP2: Rural Timber Pine Land, ready for 2nd to 3rd thinning cut of productive pine timber, should be used for sawlogs & veneer, sold by (\$/MBF-Doyle), age is generally 25-35 years old.

RTP3: Rural Timber Pine Land, just reaching age to be harvested. Should be marked and thinned to give exposure growth, between 17-25 years of age, normally sold in the form of pulpwood, sold by (\$/Cord)

RTP4: Rural Timber Pine Land, recently planted or young growth pine plantations, from seedlings to 17 years of age.

### MIXED FOREST LAND

Mixed forest land includes all forested areas where both deciduous (hardwood) or evergreen (pine) trees are growing and neither predominates. When more than one-third intermixture of either deciduous or evergreen species occurs in a specific area it is classified as mixed forest land.

### MIXED TIMBER

RTM1: Rural Mixed Timber Land, Strong productive stand with in-excess of 70 year old hardwood and 35-50 year old pine timber. Normally sold in the form of sawlogs & veneer and sold by (\$/MBF-Doyle) stump sizes may range between 10-14 plus inches in size.

RTM2: Rural Mixed Timber Land, Productive stand with 50-70 year old hardwood and in-excess of 17 year old pine timber. Normally sold by (\$/Cord) or in the form of sawlogs, veneer and pulpwood. Stump sizes may range between 8-10 plus inches in size.

RTM3: Rural Mixed Timber Land, some day may be a productive stand of hardwood and softwood timber, to young to make a harvest that would be economically advisable.

### DECIDUOUS

Deciduous forest land includes all forested areas having a predominance (more than 2/3) of trees that lose leaves at the end of the frost-free season or at the beginning of a dry season.

### HARDWOOD

RTH1: Rural Timber Hardwood Land, Productive ready to harvest hardwood timber in-excess of 70 years of age with stumpage between 10-14 inches or larger. Sold as sawlogs & veneer, by (\$/MBF-Doyle). Best stands are found in creek & river bottoms or low wet areas, harvest time must be in dry seasons.

RTH2: Rural Timber Hardwood Land, Productive stand of hardwood timber that may be in need of a select cut, thinning of larger trees could produce better growth of near by smaller trees. Sold as sawlogs & veneer, stumpage is between 8-10 inches. Sold by (\$/MBF-Doyle).

RTH3: Rural Timber Hardwood Land, Scrub timber lands, needs management to become productive, may be able to select cut trees for pulpwood and is sold by (\$/Cord), stumpage ranges between 6-8 inches.

## SOIL SURVEY

Currently we do not have any soil types entered in our data processing system, when there is a need for soil types we are using the Soil Survey of Camp, Franklin, Morris and Titus Counties, Texas, this manual is furnished by the United States Department of Agriculture Soil Conservation Service, in cooperation with Texas Agricultural Experiment Station and the Texas State Soil and Water Conservation Board.

We may be able to add soil types in the future, but currently there is no area within our software.

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NOTE\* Be advised that land codes that have either a "Y" or "E" following the origination code will mean the property is located within a flood plain. "Y" is our code for flooded land and "E" is land that is within a government declared flood plain

## Titus CAD Agriculture Use Value 2005

**COPY**

Code	Descripton	Ag Value	Mkt Value
RF1	Dry Crop	\$220	\$1,025
RP1	Imp. Pasture	\$127	\$1,700
RP2	Native Pasture High	\$105	\$1,250
RP3	Native Pasture Standard	\$86	\$1,000
RP4	Native Low	\$71	\$750
Barren	Barren	\$32	\$225

## Titus CAD Timber Productiviety Values 2005

Code	Description	Soil Class	Productivity Value
ATP1	Pine	I	\$ 454.53
ATP2	Pine	II	\$ 305.44
ATP3	Pine	III	\$ 153.56
ATP4	Pine	IV	\$ 206.00
ATH1	Hardwood	I	258.58
ATH2	Hardwood	II	164.02
ATH3	Hardwood	III	110.32
ATH4	Hardwood	IV	67.92
ATM1	Mixed Timber	I	407.67
ATM2	Mixed Timber	II	282.29
ATM3	Mixed Timber	III	159.27
ATM4	Mixed Timber	IV	135.15



**Tax Year**

2005

**Five Year Period**

2000

2001

2002

2003

2004

**Cap Rate**

7.17%

**Stumpage Prices**

	Large Pine Sawtimber		Small Pine Sawtimber		Hardwood Sawtimber		Pine Pulpwood		Hardwood Pulpwood	
	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted
2000	\$38.93	\$39.65	\$18.41	\$16.95	\$13.38	\$13.43	\$8.18	\$8.33	\$8.95	\$9.12
2001	\$38.54	\$38.12	\$15.11	\$15.67	\$13.19	\$13.37	\$6.51	\$5.79	\$9.56	\$9.84
2002	\$37.43	\$41.03	\$19.43	\$16.41	\$14.84	\$17.36	\$4.45	\$4.84	\$4.37	\$5.28
2003	\$34.14	\$38.27	\$17.75	\$15.87	\$15.63	\$17.34	\$6.22	\$5.56	\$4.90	\$5.70
2004	\$32.93	\$36.61	\$19.61	\$16.46	\$18.59	\$20.96	\$6.71	\$7.27	\$5.71	\$6.02

**Management Costs East Texas NIPF**

up 1.25%

	Pine				Mixed				Hardwood			
	I	II	III	IV	I	II	III	IV	I	II	III	IV
2000	48.8	39.46	31.51	14.63	30.17	24.63	19.18	11.46	18.39	16.2	11.31	8.69
2001	45.29	36.98	29.48	14.01	28.06	23.17	18.55	11.68	17.83	15.78	11.16	8.67
2002	44.66	36.69	29.29	13.8	27.48	22.71	18.25	11.27	17.76	15.71	11.01	8.41
2003	45.33	37.24	29.73	14.01	27.89	23.05	18.52	11.44	18.03	15.95	11.18	8.54
2004	45.9	37.7	30.1	14.19	28.24	23.34	18.75	11.58	18.26	16.15	11.32	8.65

**TABLE 1. NET AVERAGE ANNUAL GROWTH PER ACRE  
BY FOREST TYPE AND SITE CLASS FOR PRIVATE TIMBERLAND**

Forest Type	Site Class	Number of Plots	Average Large Pine Sawtimber Growth/Acre (Board Feet)*	Average Small Pine Sawtimber Growth/Acre (Board Feet)*	Average Hardwood Sawtimber Growth/Acre (Board Feet)*	Average Pine Pulpwood Growth/Acre (Cubic Feet)*	Average Hardwood Pulpwood Growth/Acre (Cubic Feet)*
Pine	120 +	220	317.43	111.37	18.82	19.36	3.36
	85 - 120	300	170.55	119.56	13.69	38.94	3.46
	50 - 85	125	93.44	94.12	8.04	31.79	3.08
	< 50	8	2.19	50.40	-2.03	12.28	-0.62
Mixed	120 +	131	200.18	58.76	69.64	10.35	9.76
	85 - 120	196	125.87	62.05	37.48	9.43	6.48
	50 - 85	71	67.22	73.75	30.99	12.50	3.02
	< 50	4	30.39	104.19	1.87	12.84	20.96
Hardwood	120 +	216	86.64	22.01	129.80	2.14	10.43
	85 - 120	270	40.87	30.02	81.03	2.48	12.20
	50 - 85	247	16.78	12.09	71.56	2.68	10.81
	< 50	86	4.49	1.43	57.57	1.17	12.73

TABLE 2. CALCULATION OF AVERAGE ANNUAL GROWTH, PER ACRE, BY FOREST TYPE AND FOREST PRODUCT

## FOREST TYPE: PINE

Site Class	Number of Plots	Large Pine Sawtimber		Small Pine Sawtimber		Hardwood Sawtimber		Pine Pulpwood		Hardwood Pulpwood	
		Average Growth/Acre (board feet)*	Total Growth per Site Class	Average Growth/Acre (board feet)*	Total Growth per Site Class	Average Growth/Acre (board feet)*	Total Growth per Site Class	Average Growth/Acre (cubic feet)*	Total Growth per Site Class	Average Growth/Acre (cubic feet)*	Total Growth per Site Class
120 +	220	317.43	69,834.60	111.37	24,501.40	18.82	4,140.40	19.36	4,259.20	3.36	739.20
85-120	300	170.55	51,165.00	119.56	35,868.00	13.69	4,107.00	38.94	11,682.00	3.46	1,038.00
50-84	125	93.44	11,680.00	94.12	11,765.00	8.04	1,005.00	31.79	3,973.75	3.08	385.00
<50	8	2.19	17.52	50.40	403.20	-2.03	-16.24	12.28	98.24	-0.62	-4.96
Totals	653		132,697.12		72,537.60		9,236.16		20,013.19		2,157.24
			+ 653		+ 653		+ 653		+ 653		+ 653
			= 203.21 bd. ft.		= 111.08 bd. ft.		= 14.14 bd. ft.		= 30.65 cu. ft.		= 3.30 cu. ft.

## FOREST TYPE: MIXED

Site Class	Number of Plots	Large Pine Sawtimber		Small Pine Sawtimber		Hardwood Sawtimber		Pine Pulpwood		Hardwood Pulpwood	
		Average Growth/Acre (board feet)*	Total Growth per Site Class	Average Growth/Acre (board feet)*	Total Growth per Site Class	Average Growth/Acre (board feet)*	Total Growth per Site Class	Average Growth/Acre (cubic feet)*	Total Growth per Site Class	Average Growth/Acre (cubic feet)*	Total Growth per Site Class
120 +	131	200.18	26,223.58	58.76	7,697.56	69.64	9,122.84	10.35	1,355.85	9.76	1,278.56
85-120	196	125.87	24,670.52	62.05	12,161.80	37.48	7,346.08	9.43	1,848.28	6.48	1,270.08
50-84	71	67.22	4,772.62	73.75	5,236.25	30.99	2,200.29	12.50	887.50	3.02	214.42
<50	4	30.39	121.56	104.19	416.76	1.87	7.48	12.84	51.36	20.96	83.84
Totals	402		55,788.28		25,512.37		18,676.69		4,142.99		2,846.90
			+ 402		+ 402		+ 402		+ 402		+ 402
			= 138.78 bd. ft.		= 63.46 bd. ft.		= 46.46 bd. ft.		= 10.31 cu. ft.		= 7.08 cu. ft.

## FOREST TYPE: HARDWOOD

Site Class	Number of Plots	Large Pine Sawtimber		Small Pine Sawtimber		Hardwood Sawtimber		Pine Pulpwood		Hardwood Pulpwood	
		Average Growth/Acre (board feet)*	Total Growth per Site Class	Average Growth/Acre (board feet)*	Total Growth per Site Class	Average Growth/Acre (board feet)*	Total Growth per Site Class	Average Growth/Acre (cubic feet)*	Total Growth per Site Class	Average Growth/Acre (cubic feet)*	Total Growth per Site Class
120 +	216	86.64	18,714.24	22.01	4,754.16	129.80	28,036.80	2.14	462.24	10.43	2,252.88
85-120	270	40.87	11,034.90	30.02	8,105.40	81.03	21,878.10	2.48	669.60	12.20	3,294.00
50-84	247	16.78	4,144.66	12.09	2,986.23	71.56	17,675.32	2.68	661.96	10.81	2,670.07
<50	86	4.49	386.14	1.43	122.98	57.57	4,951.02	1.17	100.62	12.73	1,094.78
Totals	819		34,279.94		15,968.77		72,541.24		1,894.42		9,311.73
			+ 819		+ 819		+ 819		+ 819		+ 819
			= 41.86 bd. ft.		= 19.50 bd. ft.		= 88.57 bd. ft.		= 2.31 cu. ft.		= 11.37 cu. ft.

**TABLE 3. AVERAGE ANNUAL TIMBER GROWTH, MEASURED IN TERMS OF FOREST PRODUCTS,  
ON AN AVERAGE ACRE OF TIMBER, BY FOREST TYPE**

Forest Type	Board Feet* per Acre per Year			Cubic Feet per Acre per Year	
	Large Pine Sawtimber	Small Pine Sawtimber	Hardwood Sawtimber	Pine Pulpwood	Hardwood Pulpwood
Pine	203.21	111.08	14.14	30.65	3.30
Mixed	138.78	63.46	46.46	10.31	7.08
Hardwood	41.86	19.50	88.57	2.31	11.37

\* Million board feet are expressed in terms of International 1/4 inch log rule.

**TABLE 4. CALCULATION OF THE WEIGHTED CONVERSION FACTORS  
USED TO CHANGE THE VOLUME OF LARGE PINE SAWTIMBER AND HARDWOOD SAWTIMBER  
MEASURED IN INTERNATIONAL 1/4 INCH LOG RULE TO DOYLE LOG RULE**

Diameter Class	Volume in Million bd. ft. International 1/4" Log Rule		Total Volume		Percent of Total Volume		Conversion Factor		Weighted Contribution
<b>PINE</b>									
11 - 12.9	5,195.1	+	24,003.1	=	21.643%	x	0.49037	x	0.10613
13 - 14.9	5,365.1	+	24,003.1	=	22.352%	x	0.52460	x	0.11726
15 - 16.9	4,855.0	+	24,003.1	=	20.227%	x	0.59120	x	0.11958
17 - 18.9	3,468.3	+	24,003.1	=	14.449%	x	0.65273	x	0.09431
19 - 20.9	2,136.7	+	24,003.1	=	8.902%	x	0.70653	x	0.06290
21 - 28.9	2,629.3	+	24,003.1	=	10.954%	x	0.81153	x	0.08889
29+	353.6	+	24,003.1	=	1.473%	x	0.92181	x	0.01358
	<u>24,003.1</u>				<u>100.00%</u>				<u>0.60265</u>

**Weighted Conversion Factor for Large Pine Sawtimber = 0.60265**

<b>HARDWOOD</b>									
11 - 12.9	2,428.4	+	14,434.5	=	16.824%	x	0.46377	x	0.07802
13 - 14.9	2,868.1	+	14,434.5	=	19.870%	x	0.52923	x	0.10516
15 - 16.9	2,454.5	+	14,434.5	=	17.004%	x	0.59130	x	0.10054
17 - 18.9	2,080.3	+	14,434.5	=	14.412%	x	0.64600	x	0.09310
19 - 20.9	1,525.6	+	14,434.5	=	10.569%	x	0.69327	x	0.07327
21 - 28.9	2,571.3	+	14,434.5	=	17.814%	x	0.78412	x	0.13968
29+	506.3	+	14,434.5	=	3.508%	x	0.87323	x	0.03063
	<u>14,434.5</u>				<u>100.00%</u>				<u>0.62040</u>

**Weighted Conversion Factor for Hardwood Sawtimber = 0.62040**

Volume Data from United States Forest Service, Forest Inventory and Analysis  
Conversion Factors for International 1/4 Inch Log Rule to Doyle Log Rule from Mississippi State Study conducted by  
Thomas Matney  
Conversion Factors for Doyle Log Rule to Tons from Texas Forest Service

**TABLE 5. CONVERTING SAWTIMBER VOLUMES MEASURED IN INTERNATIONAL 1/4 INCH RULE TO DOYLE RULE AND PULPWOOD CUBIC FOOT VOLUMES TO CORDS, BY FOREST TYPE**

**FOREST TYPE: PINE**

Forest Product	MBF International 1/4" Rule*		Weighted Doyle Conversion Factor**		MBF Doyle Rule		MBF Conversion		Growth in Board Feet		Ton Conversion Factor		Growth In Tons
Large Pine Sawtimber	203.21	x	0.60265	=	122.46	+	1,000	=	0.12246	x	8.0000	=	0.9797
Hardwood Sawtimber	14.14	x	0.62040	=	8.77	+	1,000	=	0.00877	x	9.0000	=	0.0789
					MBF International 1/4" Rule*		Cord Conversion Factor		Growth in Cords		Ton Conversion Factor		Growth In Tons
Small Pine Sawtimber					111.08	+	500	=	0.22216	x	2.6250	=	0.5832
Pine Pulpwood			30.65			+	81	=	0.37840	x	2.5625	=	0.9697
Hardwood Pulpwood			3.30			+	80	=	0.04125	x	2.8000	=	0.1155

**FOREST TYPE: MIXED**

Forest Product	MBF International 1/4" Rule*		Weighted Doyle Conversion Factor**		MBF Doyle Rule		MBF Conversion		Growth in Board Feet		Ton Conversion Factor		Growth In Tons
Large Pine Sawtimber	138.78	x	0.60265	=	83.64	+	1,000	=	0.08364	x	8.0000	=	0.6691
Hardwood Sawtimber	46.46	x	0.62040	=	28.82	+	1,000	=	0.02882	x	9.0000	=	0.2594
					MBF International 1/4" Rule*		Cord Conversion Factor		Growth in Cords		Ton Conversion Factor		Growth In Tons
Small Pine Sawtimber					63.46	+	500	=	0.12692	x	2.6250	=	0.3332
Pine Pulpwood			10.31			+	81	=	0.12728	x	2.5625	=	0.3262
Hardwood Pulpwood			7.08			+	80	=	0.08850	x	2.8000	=	0.2478

**FOREST TYPE: HARDWOOD**

Forest Product	MBF International 1/4" Rule*		Weighted Doyle Conversion Factor**		MBF Doyle Rule		MBF Conversion		Growth in Board Feet		Ton Conversion Factor		Growth In Tons
Large Pine Sawtimber	41.86	x	0.60265	=	25.23	+	1,000	=	0.02523	x	8.0000	=	0.2018
Hardwood Sawtimber	88.57	x	0.62040	=	54.95	+	1,000	=	0.05495	x	9.0000	=	0.4946
					MBF International 1/4" Rule*		Cord Conversion Factor		Growth in Cords		Ton Conversion Factor		Growth In Tons
Small Pine Sawtimber					19.50	+	500	=	0.03900	x	2.6250	=	0.1024
Pine Pulpwood			2.31			+	81	=	0.02852	x	2.5625	=	0.0731
Hardwood Pulpwood			11.37			+	80	=	0.14213	x	2.8000	=	0.3980

\*From Table 3

\*\*From Table 4

Conversion Factors for International 1/4 Inch Log Rule to Doyle Log Rule from Mississippi State Study conducted by Thomas Matney

Conversion Factors for Doyle Log Rule to Tons and for International 1/4" Rule to Cord from Texas Forest Service

**TABLE 6. AVERAGE ANNUAL TIMBER GROWTH, MEASURED IN TONS PER ACRE PER YEAR,  
BY FOREST TYPE AND FOREST PRODUCT**

Forest Type	Large Pine Sawtimber	Small Pine Sawtimber	Hardwood Sawtimber	Pine Pulpwood	Hardwood Pulpwood
Pine	1.0538	0.4757	0.1558	0.9766	0.1914
Mixed	0.6862	0.1544	0.5680	0.3282	0.4095
Hardwood	0.2065	0.0684	0.9258	0.1050	0.3839

**TABLE 7. AVERAGE STUMPAGE PRICES MEASURED IN PRICE PER TON  
FOR FOREST PRODUCTS**

Year	Large Pine Sawtimber			Small Pine Sawtimber			Hardwood Sawtimber		
	Unweighted Average Prices	Weighted Average Prices	Average of Unweighted and Weighted Prices	Unweighted Average Prices	Weighted Average Prices	Average of Unweighted and Weighted Prices	Unweighted Average Prices	Weighted Average Prices	Average of Unweighted and Weighted Prices
2000	\$38.93	\$39.65	\$39.29	\$18.41	\$16.95	\$17.68	\$13.38	\$13.43	\$13.41
2001	\$38.54	\$38.12	\$38.33	\$15.11	\$15.67	\$15.39	\$13.19	\$13.37	\$13.28
2002	\$37.43	\$41.03	\$39.23	\$19.43	\$16.41	\$17.92	\$14.84	\$17.36	\$16.10
2003	\$34.14	\$38.27	\$36.21	\$17.75	\$15.87	\$16.81	\$15.63	\$17.34	\$16.49
2004	\$32.93	\$36.61	\$34.77	\$19.61	\$16.46	\$18.04	\$18.59	\$20.96	\$19.78

  

Year	Pine Pulpwood			Hardwood Pulpwood		
	Unweighted Average Prices	Weighted Average Prices	Average of Unweighted and Weighted Prices	Unweighted Average Prices	Weighted Average Prices	Average of Unweighted and Weighted Prices
2000	\$8.18	\$8.33	\$8.26	\$8.95	\$9.12	\$9.04
2001	\$6.51	\$5.79	\$6.15	\$9.56	\$9.84	\$9.70
2002	\$4.45	\$4.84	\$4.65	\$4.37	\$5.28	\$4.83
2003	\$6.22	\$5.56	\$5.89	\$4.90	\$5.70	\$5.30
2004	\$6.71	\$7.27	\$6.99	\$5.71	\$6.02	\$5.87

Unweighted averages are arithmetic means of reported transactions.

Weighted averages are equal to the total value of reported transactions divided by the total volume of reported transactions.

Source: Texas Forest Service



**TABLE 8. CALCULATION OF THE ANNUAL AVERAGE GROSS INCOME  
OF AN ACRE OF TIMBER GROWTH, BY FOREST TYPE**

PINE																Average Annual Gross Income															
Year	Sawtimber Growth (tons)								Pulp Growth (tons)								=														
	Large Pine* x	Price **	+	Small Pine* x	Price **	+	Hardwood* x	Price **	+	Pine* x	Price **	+	Hardwood* x	Price **																	
2000	(	1.0538	x	\$39.29	)	+	(	0.4757	x	\$17.68	)	+	(	0.1558	x	\$13.41	)	+	(	0.9766	x	\$8.26	)	+	(	0.1914	x	\$9.04	)	=	\$61.70
2001	(	1.0538	x	\$38.33	)	+	(	0.4757	x	\$15.39	)	+	(	0.1558	x	\$13.28	)	+	(	0.9766	x	\$6.15	)	+	(	0.1914	x	\$9.70	)	=	\$57.64
2002	(	1.0538	x	\$39.23	)	+	(	0.4757	x	\$17.92	)	+	(	0.1558	x	\$16.10	)	+	(	0.9766	x	\$4.65	)	+	(	0.1914	x	\$4.83	)	=	\$57.84
2003	(	1.0538	x	\$36.21	)	+	(	0.4757	x	\$16.81	)	+	(	0.1558	x	\$16.49	)	+	(	0.9766	x	\$5.89	)	+	(	0.1914	x	\$5.30	)	=	\$55.49
2004	(	1.0538	x	\$34.77	)	+	(	0.4757	x	\$18.04	)	+	(	0.1558	x	\$19.78	)	+	(	0.9766	x	\$6.99	)	+	(	0.1914	x	\$5.87	)	=	\$56.25

MIXED																Average Annual Gross Income															
Year	Sawtimber Growth (tons)								Pulp Growth (tons)								=														
	Large Pine* x	Price **	+	Small Pine* x	Price **	+	Hardwood* x	Price **	+	Pine* x	Price **	+	Hardwood* x	Price **																	
2000	(	0.6862	x	\$39.29	)	+	(	0.1544	x	\$17.68	)	+	(	0.5680	x	\$13.41	)	+	(	0.3282	x	\$8.26	)	+	(	0.4095	x	\$9.04	)	=	\$43.72
2001	(	0.6862	x	\$38.33	)	+	(	0.1544	x	\$15.39	)	+	(	0.5680	x	\$13.28	)	+	(	0.3282	x	\$6.15	)	+	(	0.4095	x	\$9.70	)	=	\$42.21
2002	(	0.6862	x	\$39.23	)	+	(	0.1544	x	\$17.92	)	+	(	0.5680	x	\$16.10	)	+	(	0.3282	x	\$4.65	)	+	(	0.4095	x	\$4.83	)	=	\$42.34
2003	(	0.6862	x	\$36.21	)	+	(	0.1544	x	\$16.81	)	+	(	0.5680	x	\$16.49	)	+	(	0.3282	x	\$5.89	)	+	(	0.4095	x	\$5.30	)	=	\$40.91
2004	(	0.6862	x	\$34.77	)	+	(	0.1544	x	\$18.04	)	+	(	0.5680	x	\$19.78	)	+	(	0.3282	x	\$6.99	)	+	(	0.4095	x	\$5.87	)	=	\$42.58

HARDWOOD																Average Annual Gross Income															
Year	Sawtimber Growth (tons)								Pulp Growth (tons)								=														
	Large Pine* x	Price **	+	Small Pine* x	Price **	+	Hardwood* x	Price **	+	Pine* x	Price **	+	Hardwood* x	Price **																	
2000	(	0.2065	x	\$39.29	)	+	(	0.0684	x	\$17.68	)	+	(	0.9258	x	\$13.41	)	+	(	0.1050	x	\$8.26	)	+	(	0.3839	x	\$9.04	)	=	\$26.08
2001	(	0.2065	x	\$38.33	)	+	(	0.0684	x	\$15.39	)	+	(	0.9258	x	\$13.28	)	+	(	0.1050	x	\$6.15	)	+	(	0.3839	x	\$9.70	)	=	\$25.63
2002	(	0.2065	x	\$39.23	)	+	(	0.0684	x	\$17.92	)	+	(	0.9258	x	\$16.10	)	+	(	0.1050	x	\$4.65	)	+	(	0.3839	x	\$4.83	)	=	\$26.57
2003	(	0.2065	x	\$36.21	)	+	(	0.0684	x	\$16.81	)	+	(	0.9258	x	\$16.49	)	+	(	0.1050	x	\$5.89	)	+	(	0.3839	x	\$5.30	)	=	\$26.55
2004	(	0.2065	x	\$34.77	)	+	(	0.0684	x	\$18.04	)	+	(	0.9258	x	\$19.78	)	+	(	0.1050	x	\$6.99	)	+	(	0.3839	x	\$5.87	)	=	\$29.71

\* From Table 5

\*\*From Table 7

**TABLE 9. CALCULATION OF THE POTENTIAL GROWTH  
OF AN AVERAGE ACRE OF TIMBER**

<b>County</b>	<b>Number of Privately-Owned Acres (000's) by Site Class</b>					<b>All Classes</b>
	<b>165+</b>	<b>120-165</b>	<b>85-120</b>	<b>50-85</b>	<b>&lt;50</b>	
Anderson	33.2	82.6	104.0	98.1	27.1	345.0
Angelina	24.1	103.9	128.4	42.3	5.7	304.4
Bowie	17.7	28.5	72.7	92.8	28.1	239.8
Camp	6.9	7.0	11.6	23.1	0.0	48.6
Cass	18.3	90.2	167.6	150.9	31.3	458.3
Chambers	0.0	0.0	13.8	15.3	3.1	32.2
Cherokee	14.9	127.3	186.9	71.9	9.3	410.3
Franklin	5.2	0.0	19.9	43.1	16.0	84.2
Gregg	5.2	19.0	49.8	19.0	0.0	93.0
Grimes	0.0	15.6	27.8	67.9	27.9	139.2
Hardin	12.2	107.4	182.5	123.4	24.7	450.2
Harris	6.1	18.6	78.2	71.8	12.2	186.9
Harrison	25.5	109.7	181.3	55.4	4.9	376.8
Henderson	1.8	5.3	27.1	58.4	88.7	181.3
Houston	2.6	65.7	161.1	89.7	14.8	333.9
Jasper	37.8	94.9	146.5	150.2	5.8	435.2
Jefferson	5.6	5.6	32.9	16.7	1.4	62.2
Leon	0.0	8.0	54.6	84.9	143.9	291.4
Liberty	30.9	62.0	104.5	122.3	18.0	337.7
Madison	5.1	3.4	42.0	24.4	15.4	90.3
Marion	5.8	54.8	77.6	62.0	3.0	203.2
Montgomery	5.6	65.9	168.0	72.9	40.9	353.3
Morris	0.0	9.1	24.6	30.4	1.5	65.6
Nacogdoches	36.0	129.1	171.4	27.6	10.8	374.9
Newton	21.0	123.2	213.0	140.4	1.4	499.0
Orange	6.2	32.1	55.2	16.7	0.0	110.2
Panola	11.7	86.1	175.1	55.6	5.9	334.4
Polk	44.2	140.0	215.0	105.5	10.5	515.2
Red River	5.5	18.1	63.5	170.5	65.8	323.4
Rusk	13.3	99.3	156.6	79.7	15.2	364.1
Sabine	20.9	73.6	83.2	5.8	0.0	183.5
San Augustine	24.1	48.5	123.7	6.1	2.6	205.0
San Jacinto	16.1	49.1	101.1	49.2	10.1	225.6
Shelby	40.3	86.5	120.3	26.9	0.0	274.0
Smith	7.5	65.2	101.5	73.4	28.4	276.0
Titus	0.0	11.6	24.5	46.1	12.2	94.4
Trinity	31.7	68.9	129.9	39.6	0.0	270.1
Tyler	28.5	160.2	197.3	94.2	11.4	491.6
Upshur	14.6	37.9	71.3	71.8	11.3	206.9
Van Zandt	0.0	0.0	42.0	63.1	36.9	142.0
Walker	6.1	60.3	109.4	70.9	17.0	263.7
Waller	0.0	2.5	37.7	12.4	9.5	62.1
Wood	0.4	18.1	97.1	57.4	19.7	192.7
<b>All Counties</b>	<b>592.6</b>	<b>2,394.8</b>	<b>4,352.2</b>	<b>2,799.8</b>	<b>792.4</b>	<b>10,931.8</b>

**TABLE 9. CALCULATION OF THE POTENTIAL GROWTH  
OF AN AVERAGE ACRE OF TIMBER, EAST TEXAS (continued)**

Growth Potentials County / Soil Type	Potential Cu. Ft. Growth x Number of Acres (000's)					Total
	163	163	123	85	60	
	165+	120-165	85-120	50-85	<50	
Anderson	5,411.6	13,463.8	12,792.0	8,338.5	1,626.0	41,631.9
Angelina	3,928.3	16,935.7	15,793.2	3,595.5	342.0	40,594.7
Bowie	2,885.1	4,645.5	8,942.1	7,888.0	1,686.0	26,046.7
Camp	1,124.7	1,141.0	1,426.8	1,963.5	0.0	5,656.0
Cass	2,982.9	14,702.6	20,614.8	12,826.5	1,878.0	53,004.8
Chambers	0.0	0.0	1,697.4	1,300.5	186.0	3,183.9
Cherokee	2,428.7	20,749.9	22,988.7	6,111.5	558.0	52,836.8
Franklin	847.6	0.0	2,447.7	3,663.5	960.0	7,918.8
Gregg	847.6	3,097.0	6,125.4	1,615.0	0.0	11,685.0
Grimes	0.0	2,542.8	3,419.4	5,771.5	1,674.0	13,407.7
Hardin	1,988.6	17,506.2	22,447.5	10,489.0	1,482.0	53,913.3
Harris	994.3	3,031.8	9,618.6	6,103.0	732.0	20,479.7
Harrison	4,156.5	17,881.1	22,299.9	4,709.0	294.0	49,340.5
Henderson	293.4	863.9	3,333.3	4,964.0	5,322.0	14,776.6
Houston	423.8	10,709.1	19,815.3	7,624.5	888.0	39,460.7
Jasper	6,161.4	15,468.7	18,019.5	12,767.0	348.0	52,764.6
Jefferson	912.8	912.8	4,046.7	1,419.5	84.0	7,375.8
Leon	0.0	1,304.0	6,715.8	7,216.5	8,634.0	23,870.3
Liberty	5,036.7	10,106.0	12,853.5	10,395.5	1,080.0	39,471.7
Madison	831.3	554.2	5,166.0	2,074.0	924.0	9,549.5
Marion	945.4	8,932.4	9,544.8	5,270.0	180.0	24,872.6
Montgomery	912.8	10,741.7	20,664.0	6,196.5	2,454.0	40,969.0
Morris	0.0	1,483.3	3,025.8	2,584.0	90.0	7,183.1
Nacogdoches	5,868.0	21,043.3	21,082.2	2,346.0	648.0	50,987.5
Newton	3,423.0	20,081.6	26,199.0	11,934.0	84.0	61,721.6
Orange	1,010.6	5,232.3	6,789.6	1,419.5	0.0	14,452.0
Panola	1,907.1	14,034.3	21,537.3	4,726.0	354.0	42,558.7
Polk	7,204.6	22,820.0	26,445.0	8,967.5	630.0	66,067.1
Red River	896.5	2,950.3	7,810.5	14,492.5	3,948.0	30,097.8
Rusk	2,167.9	16,185.9	19,261.8	6,774.5	912.0	45,302.1
Sabine	3,406.7	11,996.8	10,233.6	493.0	0.0	26,130.1
San Augustine	3,928.3	7,905.5	15,215.1	518.5	156.0	27,723.4
San Jacinto	2,624.3	8,003.3	12,435.3	4,182.0	606.0	27,850.9
Shelby	6,568.9	14,099.5	14,796.9	2,286.5	0.0	37,751.8
Smith	1,222.5	10,627.6	12,484.5	6,239.0	1,704.0	32,277.6
Titus	0.0	1,890.8	3,013.5	3,918.5	732.0	9,554.8
Trinity	5,167.1	11,230.7	15,977.7	3,366.0	0.0	35,741.5
Tyler	4,645.5	26,112.6	24,267.9	8,007.0	684.0	63,717.0
Upshur	2,379.8	6,177.7	8,769.9	6,103.0	678.0	24,108.4
Van Zandt	0.0	0.0	5,166.0	5,363.5	2,214.0	12,743.5
Walker	994.3	9,828.9	13,456.2	6,026.5	1,020.0	31,325.9
Waller	0.0	407.5	4,637.1	1,054.0	570.0	6,668.6
Wood	65.2	2,950.3	11,943.3	4,879.0	1,182.0	21,019.8
<b>All Counties</b>	<b>96,593.8</b>	<b>390,352.4</b>	<b>535,320.6</b>	<b>237,983.0</b>	<b>47,544.0</b>	<b>1,307,793.8</b>

$$1,307,793.8 \div 10,931.8 = 119.63 \text{ cubic feet per acre per year}$$

Data from the United States Forest Service  
Growth potentials based on the 1975 Boyce Study

TABLE 10. CALCULATION OF SOIL PRODUCTIVITY MULTIPLIERS

Soil Productivity Class	Average Maximum Potential Productivity in Southern United States (cu. ft. / acre / yr.)		Average Maximum Potential Productivity (cu. ft. / acre / yr.)		Productivity Multiplier
I	163	÷	119.63	=	1.36
II	123	÷	119.63	=	1.03
III	85	÷	119.63	=	.71
IV	60	÷	119.63	=	.50

Source: Average Maximum Potential Productivity from Boyce Study

**TABLE 11. CALCULATION OF AVERAGE ANNUAL POTENTIAL GROSS INCOME  
BY FOREST TYPE AND SOIL PRODUCTIVITY CLASS**

**PINE**

Soil Productivity Class	I			II			III			IV		
	Gross Income*	Prod. Mult.**	Potential Gross Income	Gross Income*	Prod. Mult.**	Potential Gross Income	Gross Income*	Prod. Mult.**	Potential Gross Income	Gross Income*	Prod. Mult.**	Potential Gross Income
Year												
2000	\$61.70	x 1.36 =	\$83.91	\$61.70	x 1.03 =	\$63.55	\$61.70	x 0.71 =	\$43.81	\$61.70	x 0.50 =	\$30.85
2001	\$57.64	x 1.36 =	\$78.39	\$57.64	x 1.03 =	\$59.37	\$57.64	x 0.71 =	\$40.92	\$57.64	x 0.50 =	\$28.82
2002	\$57.84	x 1.36 =	\$78.66	\$57.84	x 1.03 =	\$59.58	\$57.84	x 0.71 =	\$41.07	\$57.84	x 0.50 =	\$28.92
2003	\$55.49	x 1.36 =	\$75.47	\$55.49	x 1.03 =	\$57.15	\$55.49	x 0.71 =	\$39.40	\$55.49	x 0.50 =	\$27.75
2004	\$56.25	x 1.36 =	\$76.50	\$56.25	x 1.03 =	\$57.94	\$56.25	x 0.71 =	\$39.94	\$56.25	x 0.50 =	\$28.13

**MIXED**

Soil Productivity Class	I			II			III			IV		
	Gross Income*	Prod. Mult.**	Potential Gross Income	Gross Income*	Prod. Mult.**	Potential Gross Income	Gross Income*	Prod. Mult.**	Potential Gross Income	Gross Income*	Prod. Mult.**	Potential Gross Income
Year												
2000	\$43.72	x 1.36 =	\$59.46	\$43.72	x 1.03 =	\$45.03	\$43.72	x 0.71 =	\$31.04	\$43.72	x 0.50 =	\$21.86
2001	\$42.21	x 1.36 =	\$57.41	\$42.21	x 1.03 =	\$43.48	\$42.21	x 0.71 =	\$29.97	\$42.21	x 0.50 =	\$21.11
2002	\$42.34	x 1.36 =	\$57.58	\$42.34	x 1.03 =	\$43.61	\$42.34	x 0.71 =	\$30.06	\$42.34	x 0.50 =	\$21.17
2003	\$40.91	x 1.36 =	\$55.64	\$40.91	x 1.03 =	\$42.14	\$40.91	x 0.71 =	\$29.05	\$40.91	x 0.50 =	\$20.46
2004	\$42.58	x 1.36 =	\$57.91	\$42.58	x 1.03 =	\$43.86	\$42.58	x 0.71 =	\$30.23	\$42.58	x 0.50 =	\$21.29

**HARDWOOD**

Soil Productivity Class	I			II			III			IV		
	Gross Income*	Prod. Mult.**	Potential Gross Income	Gross Income*	Prod. Mult.**	Potential Gross Income	Gross Income*	Prod. Mult.**	Potential Gross Income	Gross Income*	Prod. Mult.**	Potential Gross Income
Year												
2000	\$26.08	x 1.36 =	\$35.47	\$26.08	x 1.03 =	\$26.86	\$26.08	x 0.71 =	\$18.52	\$26.08	x 0.50 =	\$13.04
2001	\$25.63	x 1.36 =	\$34.86	\$25.63	x 1.03 =	\$26.40	\$25.63	x 0.71 =	\$18.20	\$25.63	x 0.50 =	\$12.82
2002	\$26.57	x 1.36 =	\$36.14	\$26.57	x 1.03 =	\$27.37	\$26.57	x 0.71 =	\$18.86	\$26.57	x 0.50 =	\$13.29
2003	\$26.55	x 1.36 =	\$36.11	\$26.55	x 1.03 =	\$27.35	\$26.55	x 0.71 =	\$18.85	\$26.55	x 0.50 =	\$13.28
2004	\$29.71	x 1.36 =	\$40.41	\$29.71	x 1.03 =	\$30.60	\$29.71	x 0.71 =	\$21.09	\$29.71	x 0.50 =	\$14.86

\*From Table 8

\*\*From Table 10

**TABLE 12. AVERAGE ANNUAL TIMBER PRODUCTION COSTS**

<b>Year</b>	<b>Production Cost</b>
2000	\$39.46
2001	\$36.98
2002	\$36.69
2003	\$37.24
2004	\$37.70

Texas Forest Service develops production costs used in the Comptroller's annual Property Value Study for each of the twelve classes of timberlands. See Texas Timberland Management Cost Studies. Costs listed above are those developed by the Texas Forest Service for Pine II, the most common class in East Texas.

**TABLE 13. PRODUCTION COSTS ADJUSTED FOR SOIL PRODUCTIVITY  
BY FOREST TYPE AND SOIL PRODUCTIVITY CLASS**

<i>PINE</i>												
Soil Productivity Class	I			II			III			IV		
Year	Cost	Factor	Prorated Cost	Cost	Factor	Prorated Cost	Cost	Factor	Prorated Cost	Cost	Factor	Prorated Cost
2000		=	\$48.80		=	\$39.46		=	\$31.51		=	\$14.63
2001		=	\$45.29		=	\$36.98		=	\$29.48		=	\$14.01
2002		=	\$44.66		=	\$36.69		=	\$29.29		=	\$13.80
2003		=	\$45.33		=	\$37.24		=	\$29.73		=	\$14.01
2004		=	\$45.90		=	\$37.70		=	\$30.10		=	\$14.19
<i>MIXED</i>												
Soil Productivity Class	I			II			III			IV		
Year	Cost	Factor	Prorated Cost	Cost	Factor	Prorated Cost	Cost	Factor	Prorated Cost	Cost	Factor	Prorated Cost
2000		=	\$30.17		=	\$24.63		=	\$19.18		=	\$11.46
2001		=	\$28.06		=	\$23.17		=	\$18.55		=	\$11.68
2002		=	\$27.48		=	\$22.71		=	\$18.25		=	\$11.27
2003		=	\$27.89		=	\$23.05		=	\$18.52		=	\$11.44
2004		=	\$28.24		=	\$23.34		=	\$18.75		=	\$11.58
<i>HARDWOOD</i>												
Soil Productivity Class	I			II			III			IV		
Year	Cost	Factor	Prorated Cost	Cost	Factor	Prorated Cost	Cost	Factor	Prorated Cost	Cost	Factor	Prorated Cost
2000		=	\$18.39		=	\$16.20		=	\$11.31		=	\$8.69
2001		=	\$17.83		=	\$15.78		=	\$11.16		=	\$8.67
2002		=	\$17.76		=	\$15.71		=	\$11.01		=	\$8.41
2003		=	\$18.03		=	\$15.95		=	\$11.18		=	\$8.54
2004		=	\$18.26		=	\$16.15		=	\$11.32		=	\$8.65

Texas Forest Service develops production costs used in the Comptroller's annual Property Value Study for each of the twelve classes of timberlands. Proration no longer necessary.

**NOTE:** The Comptroller's Office will not receive the Texas Timberland Management Cost Study for 2003 until late 2004. These spreadsheets use 2002's costs for 2003. The 2003 costs will be changed before completion of the 2004 Property Value Study.

TABLE 14. CALCULATION OF AVERAGE ANNUAL NET INCOME

<i>PINE</i>												
Soil Productivity Class	I			II			III			IV		
	Potential Gross Income*	Annual Costs**	Net Income	Potential Gross Income*	Annual Costs**	Net Income	Potential Gross Income*	Annual Costs**	Net Income	Potential Gross Income*	Annual Costs**	Net Income
Year												
2000	\$83.91	- 48.80	= \$35.11	\$63.55	- 39.46	= \$24.09	\$43.81	- 31.51	= \$12.30	\$30.85	- 14.63	= \$16.22
2001	\$78.39	- 45.29	= \$33.10	\$59.37	- 36.98	= \$22.39	\$40.92	- 29.48	= \$11.44	\$28.82	- 14.01	= \$14.81
2002	\$78.66	- 44.66	= \$34.00	\$59.58	- 36.69	= \$22.89	\$41.07	- 29.29	= \$11.78	\$28.92	- 13.80	= \$15.12
2003	\$75.47	- 45.33	= \$30.14	\$57.15	- 37.24	= \$19.91	\$39.40	- 29.73	= \$9.67	\$27.75	- 14.01	= \$13.74
2004	\$76.50	- 45.90	= \$30.60	\$57.94	- 37.70	= \$20.24	\$39.94	- 30.10	= \$9.84	\$28.13	- 14.19	= \$13.94
<b>5 Year Average</b>			<b>\$32.59</b>			<b>\$21.90</b>			<b>\$11.01</b>			<b>\$14.77</b>
<i>MIXED</i>												
Soil Productivity Class	I			II			III			IV		
	Potential Gross Income*	Annual Costs**	Net Income	Potential Gross Income*	Annual Costs**	Net Income	Potential Gross Income*	Annual Costs**	Net Income	Potential Gross Income*	Annual Costs**	Net Income
Year												
2000	\$59.46	- 30.17	= \$29.29	\$45.03	- 24.63	= \$20.40	\$31.04	- 19.18	= \$11.86	\$21.86	- 11.46	= \$10.40
2001	\$57.41	- 28.06	= \$29.35	\$43.48	- 23.17	= \$20.31	\$29.97	- 18.55	= \$11.42	\$21.11	- 11.68	= \$9.43
2002	\$57.58	- 27.48	= \$30.10	\$43.61	- 22.71	= \$20.90	\$30.06	- 18.25	= \$11.81	\$21.17	- 11.27	= \$9.90
2003	\$55.64	- 27.89	= \$27.75	\$42.14	- 23.05	= \$19.09	\$29.05	- 18.52	= \$10.53	\$20.46	- 11.44	= \$9.02
2004	\$57.91	- 28.24	= \$29.67	\$43.86	- 23.34	= \$20.52	\$30.23	- 18.75	= \$11.48	\$21.29	- 11.58	= \$9.71
<b>5 Year Average</b>			<b>\$29.23</b>			<b>\$20.24</b>			<b>\$11.42</b>			<b>\$9.69</b>
<i>HARDWOOD</i>												
Soil Productivity Class	I			II			III			IV		
	Potential Gross Income*	Annual Costs**	Net Income	Potential Gross Income*	Annual Costs**	Net Income	Potential Gross Income*	Annual Costs**	Net Income	Potential Gross Income*	Annual Costs**	Net Income
Year												
2000	\$35.47	- 18.39	= \$17.08	\$26.86	- 16.20	= \$10.66	\$18.52	- 11.31	= \$7.21	\$13.04	- 8.69	= \$4.35
2001	\$34.86	- 17.83	= \$17.03	\$26.40	- 15.78	= \$10.62	\$18.20	- 11.16	= \$7.04	\$12.82	- 8.67	= \$4.15
2002	\$36.14	- 17.76	= \$18.38	\$27.37	- 15.71	= \$11.66	\$18.86	- 11.01	= \$7.85	\$13.29	- 8.41	= \$4.88
2003	\$36.11	- 18.03	= \$18.08	\$27.35	- 15.95	= \$11.40	\$18.85	- 11.18	= \$7.67	\$13.28	- 8.54	= \$4.74
2004	\$40.41	- 18.26	= \$22.15	\$30.60	- 16.15	= \$14.45	\$21.09	- 11.32	= \$9.77	\$14.86	- 8.65	= \$6.21
<b>5 Year Average</b>			<b>\$18.54</b>			<b>\$11.76</b>			<b>\$7.91</b>			<b>\$4.87</b>

\*From Table 11

\*\* From Table 13



TABLE 15. CALCULATION OF TIMBER PRODUCTIVITY VALUES

CAPITALIZATION RATE

7.17% 2005 Value

Soil Productivity Class	Soil Productivity Classes							
	I		II		III		IV	
	Net Income	Productivity Value	Net Income	Productivity Value	Net Income	Productivity Value	Net Income	Productivity Value
Forest Type								
Pine	\$32.59	\$454.53	\$21.90	\$305.44	\$11.01	\$153.56	\$14.77	\$206.00
Mixed	\$29.23	\$407.67	\$20.24	\$282.29	\$11.42	\$159.27	\$9.69	\$135.15
Hardwood	\$18.54	\$258.58	\$11.76	\$164.02	\$7.91	\$110.32	\$4.87	\$67.92

**TABLE 15. CALCULATION OF TIMBER PRODUCTIVITY VALUES**

CAPITALIZATION RATE

7.17% 2005 Value

Forest Type	Soil Productivity Classes							
	I		II		III		IV	
	Net Income	Productivity Value	Net Income	Productivity Value	Net Income	Productivity Value	Net Income	Productivity Value
Pine	\$32.59	\$454.53	\$21.90	\$305.44	\$11.01	\$153.56	\$14.77	\$206.00
Mixed	\$29.23	\$407.67	\$20.24	\$282.29	\$11.42	\$159.27	\$9.69	\$135.15
Hardwood	\$18.54	\$258.58	\$11.76	\$164.02	\$7.91	\$110.32	\$4.87	\$67.92

TITUS COUNTY APPRAISAL DISTRICT  
2005  
SMALL TRACT LAND SCHEDULE

Small Tract

City of Mt Pleasant

<u>Land Code</u>	<u>Acres</u>	<u>Value Per Acre</u>
RST1	0.00 TO 0.99	4500
RST2	1.00 TO 1.99	4000
RST3	2.00 TO 2.99	3500
RST4	3.00 TO 4.99	2850
RST5	5.00 TO 6.99	2350
RST6	7.00 TO 9.99	2000
RST7	10.00 TO 13.99	1800
RST8	14.00 TO 17.99	1500
RST9	18.00 TO 20.00	1200

Small Tract

City of Talco & City of Winfield

RST10	0.00 TO 0.99	2600
RST11	1.00 TO 1.99	2500
RST12	2.00 TO 2.99	2300
RST13	3.00 TO 4.99	2100
RST14	5.00 TO 6.99	1900
RST15	7.00 TO 9.99	1700
RST16	10.00 TO 13.99	1500
RST17	14.00 TO 17.99	1300
RST18	18.00 TO 20.00	1100

Small Tract

Outside Cities

Rural Area

RST50	0.00 TO 1.99	5000
RST51	2.00 TO 4.99	3750
RST52	5.00 TO 9.99	3500
RST53	10.00 TO 14.99	2200
RST54	15.00 TO 20.00	1700

# TITUS CAD AGRICULTURE USE VALUE 2005

## CASH LEASE INFORMATION

(CAP RATE 10%)

	1999	2000	2001	2002	2003	AG/VALUE	MKT VAL
RF1 CROP	24	23	22	21	20	\$220	\$ 1,025
RPI IMP PASTURE	11.5	12	14	15	11	\$127	\$ 1,500
RP2 NATIVE HIGH	11	10	11	10.5	10	\$105	\$ 1,250
RP3 NATIVE STND	7.2	8.73	9.01	9.1	9.15	\$86	\$ 1,000
RP4 NATIVE LOW	7.15	7.05	7.05	7.05	7	\$71	\$ 750
BARREN	3.5	3.1	3.2	3	3.1	\$32	\$ 225

# **TITUS CAD AGRICULTURE USE VALUE 2005**

## **CASH LEASE INFORMATION**

**(CAP RATE 10%)**

	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>AG/VALUE</b>	<b>MKT VAL</b>
<b>RF1 CROP</b>	24	23	22	21	20	\$220	\$ 1,025
<b>RPI IMP PASTURE</b>	11.5	12	14	15	11	\$127	\$ 1,500
<b>RP2 NATIVE HIGH</b>	11	10	11	10.5	10	\$105	\$ 1,250
<b>RP3 NATIVE STND</b>	7.2	8.73	9.01	9.1	9.15	\$86	\$ 1,000
<b>RP4 NATIVE LOW</b>	7.15	7.05	7.05	7.05	7	\$71	\$ 750
<b>BARREN</b>	3.5	3.1	3.2	3	3.1	\$32	\$ 225